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What is claimed is:

1. A method of providing a substantially void free underfill for a  
5 semiconductor wafer having a plurality of semiconductor chips, comprising:  
electrically connecting a plurality of contact pads on a surface of a  
semiconductor wafer associated with a plurality of semiconductor chips to  
corresponding bond pads on a circuitized substrate such that the connections create  
a gap between the chips and the substrate;  
10 sealing the gap between the chips and the substrate with a fluid,  
curable encapsulant so that there is a void therebetween;  
applying uniform pressure to the assembly causing the encapsulant to  
flow into the gap and around the connections, wherein the applied uniform pressure  
is between 10 and 1000 pounds per square inch; and  
15 applying energy to the assembly in order to cure the encapsulant.

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